ATTACHMENT FF

7099-2M PAP

CLSR

waste

FUGRO-McCLELLAND (WEST), INC.

FUGRO ◘ McClelland

RECEIVED

AUG 26 1992

DEPARTMENT OF PUBLIC ...
WASTE MANAGEMENT DIVISION

TANK REMOVAL REPORT

3801 Sepulveda Boulevard
Culver City, California

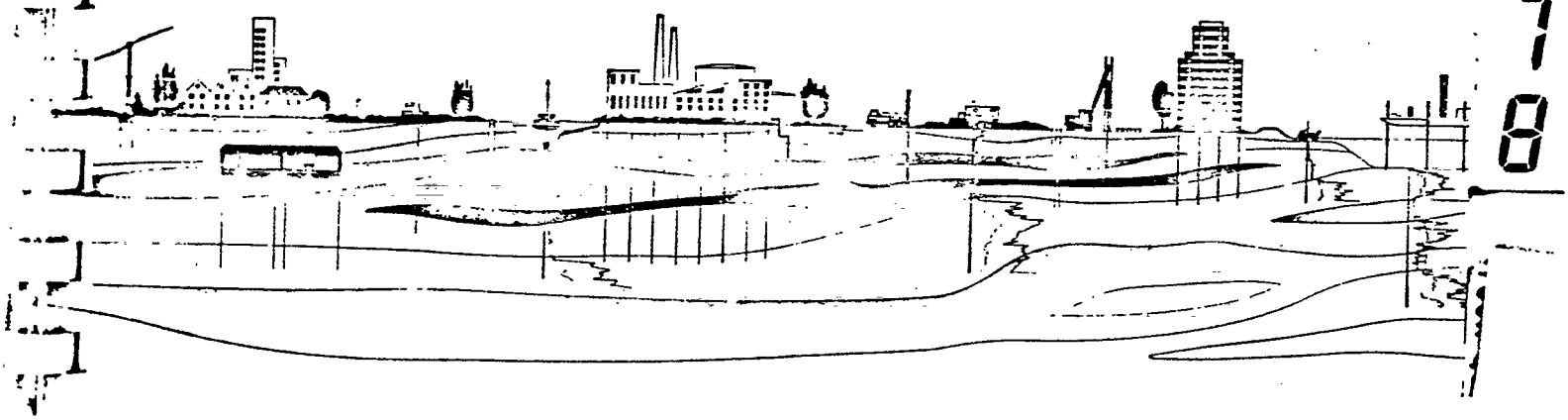
Tank Closure Permit 9067B, File I-7099

Submitted to:

Shell Oil Company

August 1992

C8 0000878



00188

1

FUGRO-McCLELLAND (WEST), INC.

5855 Olivas Park Drive
Ventura, CA 93003-7672
Tel: (805) 650-7000
FAX: (805) 650-7010

August 19, 1992
Project No. F92-41-2850
WIC 204-1944-0100

Shell Oil Company
Post Office Box 4218
Woodland Hills, California 91365-4218

Attention: Mr. John Stevens

Tank Removal Report
3801 Sepulveda Boulevard
Culver City, California
Tank Closure Permit 9067B, File I-7099

Executive Summary

On June 19, 1992, four underground fuel storage tanks were removed from the subject site. Each tank had a storage capacity of 12,000 gallons and was constructed of fiberglass. Removal was performed by JMC Construction of Chino, California. Prior to removal, the tanks were degassed by JEM Degassing. Removal was performed under the supervision of the Culver City Fire Department (Inspector Marty Kutylo). Soil samples were collected below the tanks under the supervision of the Los Angeles County Department of Public Works (Inspector Ifeanyichukwu Azie). All but one of the soil samples collected below the tanks had low to nondetectable levels of total petroleum hydrocarbons (TPH) as gasoline or diesel, benzene, toluene, ethylbenzene, and total xylenes (BTEX) and organic lead. Following the removal of the tanks, the excavation was enlarged and five new 12,000-gallon-capacity tanks were installed. The removed tanks were transported offsite for proper disposal.

On June 30, 1992, soil samples were collected below the fuel dispensers and product lines per Los Angeles County Department of Public Works permit requirements. Low to nondetectable levels of TPH, BTEX, and organic lead were detected in these samples. One sample, D-4, had higher levels of TPH/BTEX than the other samples.

Setting

The Shell service station is located on the southwest corner of the intersection of Sepulveda and Venice Boulevards in Culver City, California. On the southeast corner of the site is a Mobil station and on the northwest corner is a Chevron station. The northeast corner of the

intersection is presently occupied by a strip center; its previous use is unknown. Surrounding land use is commercial along the large streets and residential between major streets. The San Diego Freeway is about one block west of the station.

Geologically, the site is on the Los Angeles Coastal Plain. This plain is an accumulation of marine and nonmarine sediments deposited over Tertiary age bedrock. The alluvial section below the site is hundreds to thousands of feet thick. We understand that groundwater-bearing zones are contained within the alluvium. Groundwater monitoring wells associated with groundwater remediation occurring at the adjacent Mobil station have standing groundwater at about 80 feet below grade.

Earth materials noted during the tank removals included artificial fill and alluvium. Fill consisted of silty sand to about 12 feet below grade and pea gravel near the tanks. Alluvium was comprised of yellow-brown sand and gravel sized clasts. Some cobbles to about 6 inches in diameter were noted. The alluvium was damp but not water saturated.

Sampling Methodology

Four underground storage tanks were removed on June 19, 1992. The tanks were degassed by JEM degassing under SCAQMD permit #246565. Removal of the tanks was by JMC Construction. Inspector Marty Kutylo of the Culver City Fire Department was onsite to watch the removal of the tanks from the excavation. Inspector Ifeanyichukwu Azie of Los Angeles County Department of Public Works - Waste Management Division was onsite to direct sampling soil below the tanks. The tanks were transported offsite under hazardous waste manifests for proper disposal.

Soil samples were obtained below the tanks following their removal. Plate 1 depicts the sampling locations. Using the excavator bucket, pea gravel was removed and a sample of alluvium collected about 2 to 4 feet into native material. A brass liner was driven by hand into the alluvium contained within the excavator bucket. The liner was filled to capacity, sealed with Teflon, capped, secured with duct tape, labeled, and stored on ice for transport to a state-certified analytical laboratory. A courier from the laboratory was onsite to receive the samples. Spoil piles were also sampled to classify the material excavated. About 1 foot of soil was removed from the top of the spoil piles and a liner pushed into the pile. The liners were sealed with Teflon, capped, labeled, and secured with duct tape. They were iced during transport to the analytical laboratory. All samples were collected as directed by the Los Angeles County Public Works inspector. Soil pile samples were composited prior to analysis.

Soil samples were collected with a hand auger from below the fuel dispensers and along the fuel lines. Per permit requirements from the Los Angeles County Public Works, soil samples are required below each dispenser and every 20 feet of pipe run. Soil samples were

collected below each dispenser one sample was obtained below the product lines. During the tank excavation, soils below the product lines were removed. Consequently, these locations could not be sampled at a later date. Samples were obtained with a hand auger, stored in brass liners, capped with Teflon, sealed, labeled, and forwarded to a state-certified laboratory for analysis.

Results

Soil samples were analyzed per methodologies requested by Los Angeles County Public Works. These sampling protocols include: TPH (EPA 8015-diesel) and BTEX (EPA 8020) for the samples below the diesel tank, TPH (EPA 8015-gasoline) and BTEX (EPA 8020) for the samples below the gasoline tanks, and organic lead below the gasoline tank nearest the fuel island area. Spoil pile samples were composited and analyzed for TPH (EPA 8015-gasoline) and BTEX. The product line and dispenser samples were analyzed for TPH gasoline (EPA 8015-modified), and BTEX (EPA 8020). The sample collected below the diesel fuel dispenser was analyzed for TPH diesel and TPH gasoline. The results of these analyses are listed in Table 1. Analytical results of the dispenser and fuel line samples are also included in Table 1.

Table 1. Soil Analyses

Analyses Performed: Total Petroleum Hydrocarbons, Modified for Gasoline or Diesel (EPA 8015 Modified)
Benzene, Toluene, Ethylbenzene, Total Xylenes (EPA 8020)
Organic Lead (DOHS Method)

Sample	Data in Parts Per Million (ppm)						
	TPH Gasoline	TPH Diesel	B	T	E	X	Organic Lead
Below Underground Fuel Storage Tanks							
1A	—	ND	ND	0.20	0.13	0.60	—
1B	—	ND	ND	0.16	ND	0.33	—
2A	1987	—	17	445	122	1,040	0.5
2B	ND	—	ND	ND	ND	ND	0.6
3A	2.3	—	ND	0.17	ND	0.46	—
3B	0.6	—	ND	ND	ND	ND	—
4A	1.7	—	ND	ND	ND	0.24	—
4B	ND	—	ND	ND	ND	0.24	—
Below Fuel Dispensers and Product Lines							
D-1	30.6	—	0.05	2.1	0.2	7.1	—
D-2	27.4	—	0.05	1.4	0.08	4.3	—
D-3	ND	—	0.05	0.05	ND	0.04	—
D-4	2,212.5	—	18	73	69	930.7	—
D-5	ND	ND	0.06	0.06	0.02	0.08	—
L-1	ND	—	0.06	0.04	ND	0.04	—
Spoil Pile Samples							
SP-1, SP-5	1.2	—	0.3	ND	ND	ND	—
SP-2, SP-3, SP-4	1.0	—	ND	ND	0.15	0.36	—
SP-6, SP-7	1.2	—	ND	ND	ND	0.69	—
SP-8	ND	—	0.06	0.04	ND	0.2	—
SP-9	ND	—	0.04	0.04	ND	0.06	—
Detection Limit	0.5	10	0.005	0.005	0.005	0.015	0.5

ND Not detected
Analysis by Crosby Labs, Inc.

C8 000082

Discussion

Soil samples were collected below the underground fuel storage tanks at this Shell station. Soil samples were collected below the tanks, dispensers, and pipelines, and analyzed per Los Angeles County Public Works requirements. The sampling was conducted in association with the removal of four fuel tanks. Samples were collected at locations specified by the Los Angeles County Department of Public Works and analyzed by methods specified by them. Other than sample 2A, collected below one of the gasoline storage tanks, TPH did not exceed 3 ppm and BTEX concentrations did not exceed 1 ppm. Excluding sample 2A, benzene was not detected in any samples collected below the tanks. Organic lead was detected at concentrations near the detection limit in samples 2A and 2B.

Soil samples collected below the fuel dispensers and product lines were also analyzed. TPH- gasoline was detected in three of six samples analyzed. BTEX were detected in all of the samples. Only one sample (D-4) had levels of TPH-gasoline or BTEX which exceeded 50 ppm and 10 ppm, respectively.

Following removal of the tanks, the excavation was enlarged and five new 12,000-gallon-capacity double-walled fiberglass tanks were installed at the site. Soil pile sampling results had low to nondetectable levels of TPH/BTEX. Soil generated during the excavation enlargement was removed to a Class III landfill.

Limitations

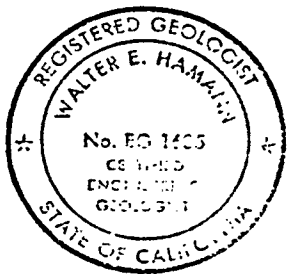
This report has been prepared for Shell Oil Company as a tank removal sampling report for a Shell service station at 3801 Sepulveda Boulevard, Culver City, California. In performing our professional services, we have applied present engineering and scientific judgement and used a level of effort consistent with the standard of practice measured on the date the work was performed in the locale of the project site for similar type studies. Fugro-McClelland (West), Inc., make no warranty, express or implied, concerning any of the materials or services furnished.

The analyses and interpretations in this report have been developed based on results of the review of existing information pertaining to the site, soil samples collected from discrete locations at the project site, and the results from laboratory analyses of soil samples. It should be recognized that subsurface conditions can vary laterally and with depth below a given site.

Please contact us with any questions regarding this report. The following documents are attached: soil analytical results from Crosby Laboratory, tank degassing certificate from JEM Degassing, hazardous waste manifests for the tanks, and the tank removal permit from the Los Angeles County Department of Public Works.

Sincerely,

FUGRO-McCLELLAND (WEST), INC.



Walter E. Hamann, C.E.G.
Senior Geologist
Registered Geologist No. 4742

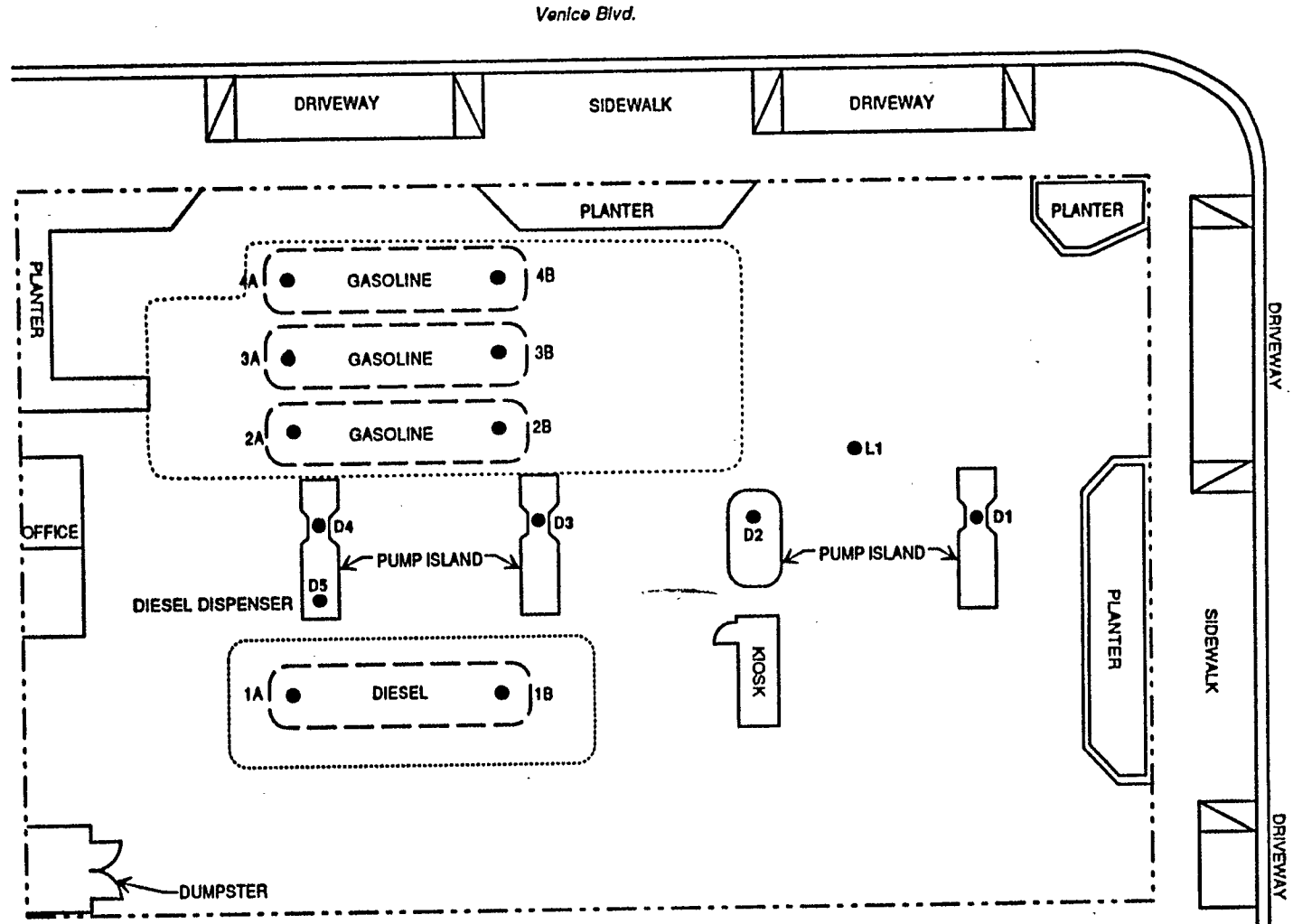
Michael P. Gialketsis
Geoenvironmental Services Manager

WEH:MPG:av/F92-2850

Enclosures: Permits and Manifests
Laboratory Reports

c: Mr. Mike Claudio - Shell Oil Company
Los Angeles County Department of Public Works

C8 000084



SITE MAP
SHELL SERVICE STATION
3401 Sepulveda Boulevard
Culver City, California

July 1992
Project No. F92-41-2850

PLATE 1

00195

Fugro McClelland

ATTACHMENT GG

204 - 1944 - 0100

FUGRO-McCLELLAND (WEST), INC.

5855 Olivas Park Drive
Ventura, CA 93003-7672
Tel: (805) 650-7000
FAX: (805) 650-7010

August 19, 1992
Project No. F92-41-2850
WIC 204-1944-0100

contaminated soil back into diesel fuel UST excavation

Shell Oil Company
Post Office Box 4218
Woodland Hills, California 91365-4218

Attention: Mr. John Stevens

Tank Removal Report Recommendations
3801 Sepulveda Boulevard
Culver City, California

Dear Mr. Stevens:

Per Shell's request, these recommendations are presented under separate cover from the tank removal report. The recommendations are based on information contained in the report and observations made at the site. Four fuel storage tanks were removed from the site on June 19, 1992. These tanks were removed following the suspected failure of one of the tanks. The tanks were made of single walled fiberglass and had a capacity of 12,000 gallons each. Prior to removal, the excavation was shored with sheet piles. Excavation monitoring per SCAQMD requirements was performed by Fugro-McClelland. JMC Construction of Chino, California, was the tank contractor for this project.

Following removal of the tanks, they were inspected for leaks. Tank 2 (Plate 1) had a crack in one of the ribs encircling the tank. The Owens Corning Fiberglass tank representative thought that it was cosmetic and would not leak fuel. Below the port used to gauge the tank, there was a crack, probably from the gauging process. The fiberglass was slightly pushed out. The gauging stick did not actually puncture the tank completely. Fiberglass surrounding this cracked area was discolored (dark colored), as was the pea gravel backfill below this point on the tank. The other tanks appeared intact. Tank 4 may have had a slight crack below its gauging port. However, neither the fiberglass nor the pea gravel were discolored. Consequently, we do not believe that this tank released fuel. Photographs taken during tank removal are included with this letter.

The possibility exists that the end being gauged was designed for the turbines. Prior to removal, we noted that a "gauge here" label painted on the tank corresponded to the end which had the turbine. Consequently, the end that was gauged may not have had a strike plate.

Once the tanks were removed, soil samples were collected from below the ends of each tank. Other than sample 2A, all samples appeared to be minimally impacted with gasoline or diesel

hydrocarbons. These soils were not discolored and did not have a gasoline odor. Sample 2A, below the leaking point of tank 2, had an odor of fresh gasoline. The analytical results of 2A suggested that gasoline had impacted the soil. The ratio of volatile hydrocarbons in this sample suggested that the gasoline was not weathered.

Soil samples were also collected below the fuel dispensers and product lines. Soil results from one of the six analyzed had levels of TPH/BTEX above Los Angeles County Public Works cleanup levels. The other five samples had low levels of TPH/BTEX. The County may require that the area having elevated levels of TPH/BTEX be assessed and possibly remediated.

Prior to installing new tanks at the site, the tank excavation was enlarged. During the enlargement, soils discolored grey and having a faint gasoline odor were noted. These soils appeared to be backfill from a previous tank replacement. The soils looked like fill material and extended to about 10 to 15 feet below grade. Analyses of this soil detected very low levels of gasoline hydrocarbons. The gasoline appeared to be highly weathered.

A vapor extraction gallery was put into the tank excavation prior to the reinstallation of new tanks. This gallery was made of 4-inch-diameter schedule 40 PVC pipe with 0.020-inch-wide slots. It encircled the base of the excavation (Plate 2). A blank riser brought the gallery to grade. Echoseal, a plastic/rubber-like liner, was used in the excavation to prevent the vapor extraction gallery from drawing air from the clean pea gravel backfilling the tanks. The pipes were put in shallow trenches, surrounded with about 4 inches of pea gravel and covered with Echoseal. The Echoseal covered the entire excavation bottom. Plate 3 depicts the design of the vapor gallery. Below grade piping was used to stub the extraction gallery out near the air and water dispensers. The diesel tank area was not used to install a storage tank. Soils that were suspected of being contaminated with gasoline were placed into the excavation. A vapor extraction gallery, having a similar design as in the tank area, was also installed in this excavation prior to backfilling (Plate 4).

Per a conversation with JMC Construction, soils removed from the site were disposed of at Rose Hills Class III landfill. Soils that appeared to be impacted with gasoline were kept onsite and backfilled into the diesel tank excavation.

This site has been impacted with gasoline hydrocarbons. The vertical and lateral extent of the hydrocarbons has not been determined. We recommend that the tank removal report be forwarded to Los Angeles County Public Works, per their requirements. We expect that they will request that a site assessment be completed wherein the vertical and lateral extent of soil or groundwater contamination be defined. Once this request is made, we recommend that it be performed. Available data suggests that a recent release of gasoline is culpable for the soil degradation. This contaminant type is amenable to vapor extraction remediation. Consequently, during assessment, vapor extraction wells should be installed in soil sampling borings. By installing the vapor extraction wells at that time, Shell should be able to reduce the overall costs of bringing this site into compliance with Los Angeles County Public Works cleanup standards. During the

installation of new tanks at this site, two 15-inch-diameter casings were installed between the tanks. These casings are to be used if drilling between the tanks is necessary. Drilling through the casings allows us to sample soil or install wells with a minimal risk of encountering the newly installed tanks.

Limitations

This report has been prepared for Shell Oil Company as a tank removal sampling report for a Shell service station at 3801 Sepulveda Boulevard, Culver City, California. In performing our professional services, we have applied present engineering and scientific judgement and used a level of effort consistent with the standard of practice measured on the date the work was performed in the locale of the project site for similar type studies. Fugro-McClelland (West), Inc. make no warranty, express or implied, in fact or by law, whether of merchantability, fitness or any particular purpose, or otherwise concerning any of the materials or services furnished by Fugro-McClelland (West), Inc., to client.

The analyses and interpretations in this report have been developed based on results of the review of existing information pertaining to the site, soil samples collected from discrete locations at the project site, and the results from laboratory analyses of soil samples. It should be recognized that subsurface conditions can vary laterally and with depth below a given site.

Please contact us with any questions regarding these recommendations.

Sincerely,

FUGRO-McCLELLAND (WEST), INC.

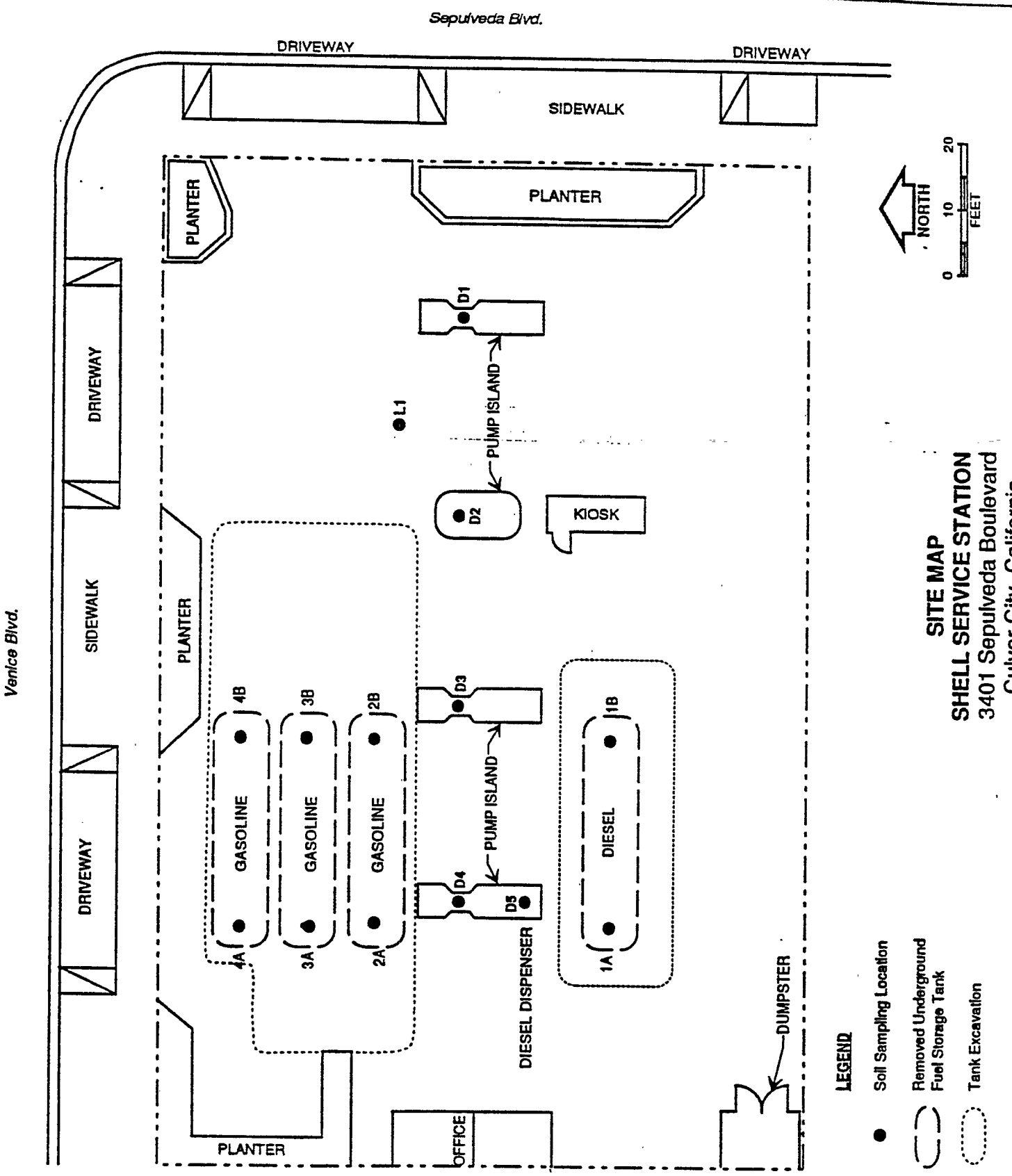
Walter E. Hamann, C.E.G.
Senior Geologist
Registered Geologist No. 4742

Michael P. Gialketsis
Geoenvironmental Services Manager

WEH:MPG:av/F92-2850

Attachments: Plates 1 through 4 - Photographs sent with original, no photo copies submitted

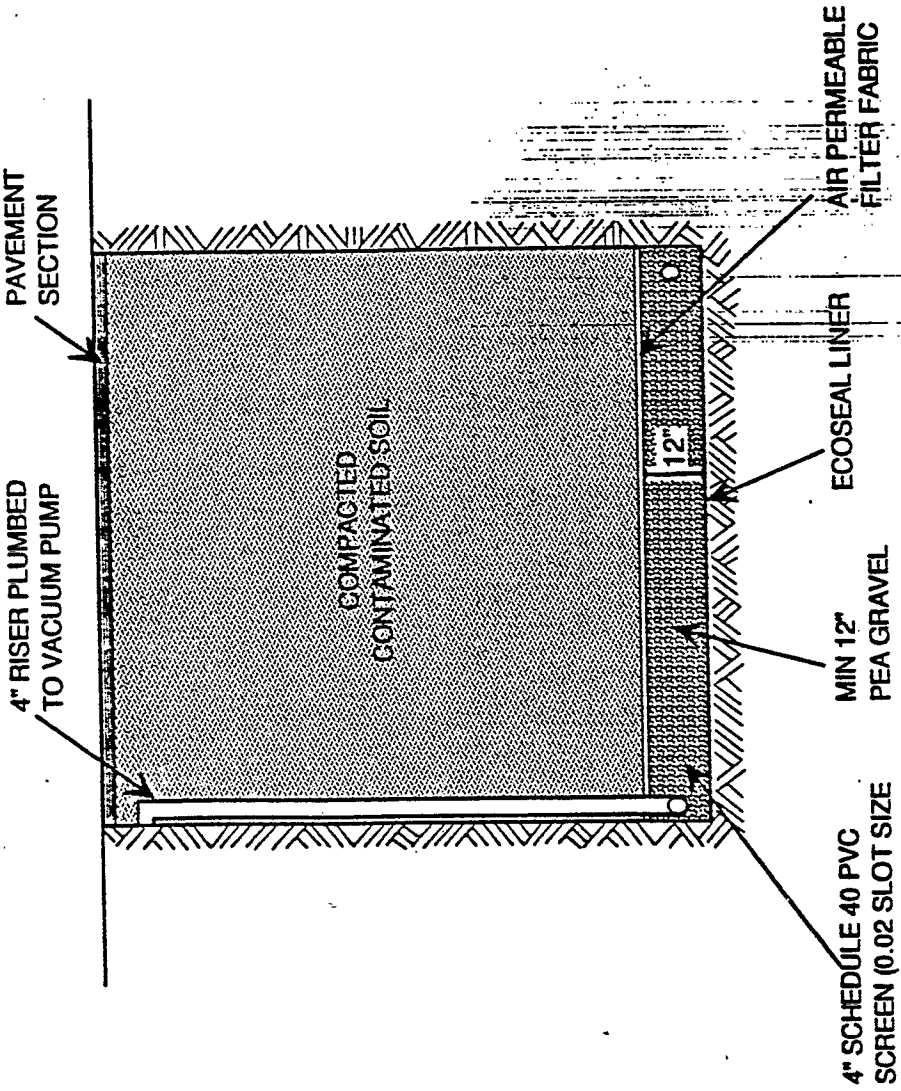
c: Mr. Mike Claudio - Shell Oil Company



SITE MAP
SHELL SERVICE STATION
3401 Sepulveda Boulevard
Culver City, California

PLATE 1

FUGRO McClelland



TYPICAL DETAIL OF VAPOR EXTRACTION VAULT

PLATE 4

ATTACHMENT HH

Shell Oil Company

P.O. Box 4218
Woodland Hills, CA 91365-42

FACSIMILE TRANSMITTAL

TRANSMITTING FAX PHONE NUMBER: (818) 226-1536
(SSN) 226-1536 (SHELL USE ONLY)

DATE: 11/9/93

TO: MIKE CLAUDIO

FROM: GREG HEALY

TEL. NO./EXT.: 226-1519

COMPANY:

SHELL OIL COMPANY
LOS ANGELES WEST RETAIL DISTRICT
5850 CANOGA AVENUE, SUITE 300
WOODLAND HILLS, CA 91365

FACSIMILE TEL. NO.: 920-3813

TELEPHONE NO.: 920-3789

NUMBER OF PAGES (INCLUDING TRANSMITTAL PAGE): 6

SPECIAL INSTRUCTIONS: MARINA DEL VENICE

TRANSMITTING EQUIPMENT: RICOH FAX 1000L - AUTOMATIC

TO VERIFY RECEIPT CALL BETTY KROLAK AT (818) 226-1514

00203

SEQUENCE OF EVENTS

SEPULVEDA/VENICE

- MARCH 7 12:30 a.m. TANK TEST SU 2000E
- MARCH 7 4 a.m. TANK FAILS 6GAL/HR.
- MARCH 7 5:30 a.m PUMP OUT OF TANK ORDE
- TEST DEPTH FOR TANK IS 87"
- WE RECOVERED 11,400 GAL
- DURING TEST APPROX. 36 GALLONS LOST
- CHECK OF DEALERS BOOKS SHOW 9,000 GAL LOST SINCE DEC.

FEBRUARY 25, 1992

LOCATION: SHELL 194401
3801 SEPULVEDA, CULVER CITY CA

TOTALIZER READINGS:

PUMP#	1-21	1-22	1-23	2-7	2-14	2-24
1	14942.28	15104.89	15370.85	19268.14	21190.53	23689.66
2	97467.85	97683.93	97957.88	103035.55	105729.77	109120.24
3	13598.04	14021.35	14493.22	20888.90	24400.00	28588.32
4	86821.27	87220.36	87657.94	94031.93	98090.67	102644.78
5	7674.21	7880.61	8245.24	13391.30	14313.88	17652.25
6	67215.84	67476.30	67756.46	72166.23	73508.23	76316.60
7	17741.45	17841.32	17950.54	20045.10	21255.46	22343.30
8	77239.01	77300.92	77376.63	78592.04	79256.82	80091.91
	382699.95	384529.68	386808.76	421419.19	437745.36	460447.06

LESS READING 1-21	382699.95
TOTAL DISPENSED	77747.11

STICK	6487	4726	2329	7372	6466	5308
CNSL					29339	52029
						29339
TOTAL GALLONS PUMPED PER CONSOLE BETWEEN 2/14 & 2/24						22690

DELIVERIES	DATE	AMOUNT
	1-23	4982
	1-25	3974
	1-27	3982
		3980
	1-29	3978
	2-1	3981
	2-3	4974
	2-5	3886
		4072
		1892
	2-7	3995
	2-10	4986
		2097
	2-12	4997
	2-16	4985
	2-17	4987
	2-18	3984
	2-22	5762
	2-23	3874
		79368
GAS IN TANK	1-21	6487
		85855
GAS FOR CALIRBATION		1250
		87105

	460447.06
TOTAL GALLONS PUMPED	437745.36
PER TOTALIZERS 2/14-2/24	22701.70
	22690.00
DIFFERENCE	11.70

GALLONS OF GAS	87105.00
LESS GALLONS DISPENSED	77747.11
SHOULD BE IN TANK	9357.89
ACTUAL GAS IN TANK 2/24	5308.00
LOSS	-4049.89

MILLIGAN TESTING & SERVICE, INC.
17029 Devonshire St., Suite 300
Northridge, CA 91325
(818) 773-0770

March 9, 1992

Mr. Rob McLaren
Shell Oil
P. O. Box 4218
Woodland Hills, CA 91365-4218

RE: WIC #204-1944-0100
3801 Sepulveda
@ Venice
Culver City, CA
(213) 398-9510

Dear Mr. McLaren:

Enclosed are the results of the tank integrity tests performed at the above location on March 6, 1992. The system used for the tests is the USTest 2000/P Tank Testing System. This system exceeds all EPA requirements, and is able to detect a leak rate of .05 gallons per hour with a 99.96% Pd and a .04% Pfa.

This criteria of .05 gallons per hour represents an accuracy tolerance of the equipment and is not to be construed as a permissable leak rate. MTS assumes no responsibility for product leakage. Our responsibility is limited to passing or failing the test based on the specified tolerance of the UST 2000/P Tank Test System.

TANK DATA						TEST DATA				
TANK NO.	CAP	PROD.	TANK MAT.	PUMP TYPE	TEST LEVEL	TANK	V/VR LINES	PROD. LINE	LEAK DET.	LEAK RATE
1	12K	SU	SWF	R.J.	87	Fail	Pass	Pass	Pass	-6.32870

We appreciate the opportunity to work with you and look forward to providing additional services in the future.

Sincerely,

Dave Milligan
State License #92-1299

Test conducted by:

Thomas Latkovich
State License #92-1387

00206

LINE TEST WORKSHEET

CUSTOMER: SHELL OIL
TEST LOCATION: WIC #204-1944-0100
3801 Sepulveda
@ Venice
Culver City, CA

TEST DATE: 03/06/92
TECHNICIAN: T. Latkovich
STATE LICENSE #: 92-1387

PRODUCT: SU-2000E

TIME	PSI	LEVEL START	LEVEL END	LINES LOSS	GAL. LOSS	GPH. LOSS	CONCLUSION
22:45	50	235	230	-5	-.0015	-.0060	
23:00	50	230	227	-3	-.0009	-.0036	
23:15	50	227	224	-3	-.0009	-.0036	
23:30	50	224	221	-3	-.0009	-.0036	PASS

SHELL OIL COMPANY Incident No. 28391911
ENVIRONMENTAL INCIDENT REPORT
L. A. WEST DISTRICT (283)

Today's Date: 03/25/92
Originally Reported: 11/24/91
Last Revised: / /

WIC: 204194400100
Location: 3801 SEPULVEDA/VENICE
CULVER CITY, CA 90230

Date Occurred/Discovered: 10/20/91

Sub-account: 3050 'L' Station

Reason for Report: Suspected Leak
Source of Problem: Unknown
Tank Material: Single Fiberglass
Tank Age: 5-9 years
Line Material: Single Fiberglass

Product: Auto Gas

Gallons Released : 0
Gallons Recovered: 0
Gallons Lost: 0

Estimated Completion Date: 11/30/91

Actual Completion Date: / /

Estimated Total Cost ($M): 2.0

Description of Incident:
SU2000E TANK TEST FAILURE.

ENVIRONMENTAL EXPENSE FUNDS

Last Requested On: 11/24/91
By: CAREY WEHRLI SSN: 520-3342

CT	LTL	DESCRIPTION	CURR YEAR BUD+ALLOC	CURR YEAR EXPENDED	TOTAL EXPENDED
		Total Expended Prior to 1991.....			0.0
5430		Line Replacement.....	0.0	0.0	0.0
5441		Site Investigation/Assessment.	0.0	0.0	1.5
5442		Contaminated Soil Disposal....	0.0	0.0	0.0
5443		Contaminated Water Disposal...	0.0	0.0	0.0
5452		Contaminated Soil Remediation.	0.0	0.0	0.0
5453		Contaminated Water Remediation	0.0	0.0	0.0
5461		Site Monitoring.....	0.0	0.0	0.0
		Totals.....	0.0	0.0	1.5

Scope of Work:
PERFORM HELIUM TEST ON SU2000E SYSTEM TO INVESTIGATE TEST FAILURE.

The above funds are approved.

Signed by: Manager, H.S. & E., Mktg. Engineering Date:

00208

LEAK DETECTOR TEST RECORD

CUSTOMER: SHELL OIL
TEST LOCATION: WIC #204-1944-0100
3801 Sepulveda
@ Venice
Culver City, CA

DATE: 03/06/92
TECHNICIAN: T. Latkovich
STATE LICENSE: 92-1387

SYSTEM DATA

Product Line Tested:	SU-2000E
Turbine Manufacturer:	R.J.
Leak Detector Manufacturer:	R.J.
Leak Detector Model:	XLD
Leak Detector Serial #:	21291-2810
Leak Detector Sealed?	Yes

TEST DATA

1. Turbine Operating Pressure:	29 PSI
2. Bleedback Test (Resiliency):	100 ML
3. Leak calibrated at:	3 GPH
Leak verified by:	
4. Dispensing ml:	95 ML
5. In seconds:	30 SEC
6. Does leak detector sense calibrated leak?	Yes
7. Confirm sensing of calibrated leak after keying nozzle:	Yes
8. Record step-through time to full pressure:	3 SEC
9. Does leak detector reset from GPH orifice?	Yes
10. Is seal/pressure relief tight (piston leak detector only)	N/A
CONCLUSION:	PASS